

# 智慧型探測技術於建築防火之應用與發展

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## 摘要

The intelligent building technology combines both traditional construction engineering and advanced information/ communication technologies (ICTs), and integrates the apparatus within a building to offer a living space of comfort, convenience and safety. Among the many intelligent building applications, the building fire safety technology is considered the most important issue for the safety of life and property of the household. As a result, early detection and proper treatment of fire is the priority for development of intelligent sensing technologies. The present research aims at exploring the application and development of the fire detection technologies for intelligent buildings. At first, the recent developments of intelligent fire detection technologies in both domestic and international fire protection industries are surveyed in lights of their applications in high-rise building, stadium, high-tech fabs, subway mall, station facilities, and shopping centers. Then, the SWOT analysis is conducted to clarify the demands and problems of the industry. Finally, a preliminary proposal for the research and development of the intelligent fire safety technologies is drafted, based on the conclusions drawn from the abovementioned research works. The research result summarizes nine most promising research topics from the technological, legal, market-oriented, and economical aspects to provide a useful guideline for the fire safety agencies and the related industrial partners of Taiwan in planning their technology development strategies.

關鍵字：Intelligent Fire Detection Technology, Building Fire Safety, SWOT